3. RECHERCHES SUR L'ORIGINE RÉELLE DES NERFS CRANIENS (Researches on the Real Origin of the Cranial Nerves). Van Gehuchten (Journal de Neurologie, 14, 15, 1898, pp. 273, 293).

According to Van Gehuchten, the facial nucleus in the rabbit consists of four divisions—the internal, middle, external, and dorsal groups, and these divisions exist almost throughout the entire length of the nucleus. In the uppermost portion of the nucleus the middle group disappears; in the lowermost portion the dorsal group is absent. In the dog the facial nucleus consists of only three groups, and these extend throughout its length. In the rabbit the peripheral neurons of the seventh nerve do not cross the raphe, and all the fibers of this nerve arise exclusively in the group of cells situated between the superior olive and the nucleus ambiguus.

Van Gehuchten found chromatolysis in the cells of the external, middle, and posterior groups, and of the external part of the internal group, after the seventh nerve in the rabbit was cut close to its exit from the stylomastoid foramen, before it had given off any extracranial branches. The cells of the internal part of the internal group, therefore, give origin to the fibers, which leave the seventh nerve before its exit at the stylomastoid foramen. From the results of similar experiments he concludes that the cells of the middle and external groups are connected with the fibers of the seventh nerve innervating the muscles of the face, except those contained within the upper branch of this nerve, and that the latter fibers arise in the posterior group. The ventral part of the seventh nucleus in the rabbit, therefore, represents the origin of the lower branch of the seventh nerve, while the dorsal part represents the origin of the upper branch.

The seventh nerve contains sensory fibers. If the central end of the cut facial nerve is irritated it causes pain. The chromatolysis which Van Gehuchten found in a few cells of the geniculate ganglion, after the seventh nerve had been cut at its exit from the stylomastoid foramen, shows that the geniculate ganglion is a cerebrospinal ganglion, and that it gives origin to the sensory fibers in the seventh nerve at its exit from the Fallopian canal. The nerve of Wrisberg is the sensory root of the seventh nerve. Amabilino obtained results in the dog different from these obtained by Van Gehuchten in the rabbit. The former believes that the cells of the geniculate ganglion send their peripheral processes into the chorda tympani nerve, and that none of these pass into the extracranial branches of the seventh nerve

SPILLER.

4. CONTRIBUTION A L'ÉTUDE DES LOCALISATIONS DES NOYAUX MOTEURS DANS LA MOELLE LOMBO-SACRÉE ET DE LA VACUOLISATION DES CELLULES NERVEUSES (Contribution to the Study of the Localization of the Motor Nuclei in the Lumbo-sacral Cord and of Vacuolization of Nerve Cells. A. Van Gehuchten et de Buck (Revue Neurologique, 6, 1898, p. 510)

The authors discuss the question of the nuclei of origin of the motor nerves of the muscles of the leg and of the foot, coming to the following conclusions:

(1.) The nuclei of origin of the motor nerves of the muscles of the leg and foot occupy the posterior part of the anterior cornua of the cord and extend from the upper portion of the fifth lumbar segment to the lower portion of the fourth sacral segment.

(2.) Two large nuclei are found which serve to innervate these portions. The first, very large, probably made up of several divisions, extends from the upper border of the fifth lumbar segment to the lower part of the third sacral segment; a second nucleus equally large, especially at its center, commences, behind the first, at the upper level of the second sacral segment and extends to the lower extremity of the fourth sacral segment.

Under the caption of vacuolization, the authors consider the cause of this very common occurrence. It is their opinion that such vacuolization is not an inherent lesion of secondary degenerations, as taught by Marinesco, nor is the post-mortem theory with its many adherents altogether tenable; the artefact hypothesis does not meet with the authors' approbation, and they leave it in much the same condition that it is, stating that in the actual state of our knowledge a definite answer as to the cause of this appearance is impossible.

Jelliffe.

5. Ueber die Veränderungen der motorischen Functionen bei Störungen der Sensibilität (Concerning Disturbances of Motion Following Disturbances of Sensation). A. v. Korniloff (Deutsche Zeitschrift für Nervenheilkunde, 12, 3 and 4).

In the dog the sensory and motor nerves of the posterior limbs are represented in the fourth, fifth, sixth and seventh lumbar and first sacral roots; occasionally also in the third lumbar and second sacral. It is necessary, therefore, to cut five roots to cause anesthesia in a posterior limb of a dog, and it is safer to cut all seven. Korniloff believes, from his experiments on a number of dogs, that division of the posterior roots causes disturbance of motion corresponding in intensity to the number of roots cut, and that when all the posterior roots of a limb are cut the limb is almost completely paralyzed. When some, but not all, of the sensory roots of a limb are cut, the movements are ataxic. The disturbance of motion is dependent on the degree of the disturbance of sensation. The writer believes that the clinical phenomena observed in these experiments have some bearing on the symptomatology of tabes.

Spiller.

PATHOLOGY.

6. Contribution a l'étude des degenerescences propagées et en particulier des altérations des cordons posterieurs consecutives aux lésions en foyer de l'encéphale (Contribution to the Study of Extending Degenerations, in Particular, Alterations in Posterior Columns Following Lesions in the Brain). G. Durante (Revue Neurologique, 6, 1898, p. 390).

From a study of four cases, three being of hemiplegia, the author brings out, what is becoming more and more evident, that retrograde degenerations do not always stop at the "relay" ganglia; that they are not necessarily confined to a single neuron, and that centrifugal sensory degeneration and centripetal motor degeneration may occur. He particularly calls attention to the occurrence of retrograde degeneration of the columns of Goll and Burdach following cerebral lesions, of which he has collected some twenty-three cases reported in literature and interpreted in a number of ways by their authors. Of twenty-nine cases, six of the author's, seventeen such types of degeneration were noted in lesions of the pons, the cerebral peduncles or the central gray nuclei; twelve were consecutive to lesions of the cortex.

From the clinical side, these observations are of interest from the relationship of such degenerations to cases of high tabes and to a number of irregular cases generally designated tabetiform.

Jelliffe.